WE CLAIM

1. A process for extracting flax protein concentrate from flax meal, which comprises:

a) adding flax meal to an aqueous acidic solution to form a first mixture having a solid fraction and an aqueous fraction containing water soluble-carbohydrates;

b) separating said first mixture into said aqueous fraction and said solid fraction;

c) hydrolyzing said solid fraction using a lipolytic enzyme to form a hydrolyzed solution;

d) adding an aqueous alkali solution to said hydrolyzed solution to form a second mixture having a second aqueous fraction containing said flax protein, and a second solid fraction;

e) separating said second mixture into said aqueous fraction and said solid fraction; and

f) evaporating said second aqueous fraction to recover said flax protein.

2. The process as defined in claim 1, wherein said first mixture has a pH of between 4 and 5.

3. The process as defined in claim 1, wherein said separating of said first mixture is done by centrifuging.

4. The process as defined in claim 1, wherein following separating of said first mixture, said solid fraction is washed with water and separated to remove more of said water-soluble carbohydrates from said solid fraction into said aqueous fraction.

5. The process as defined in claim 1, wherein said second mixture in said hydrolyzing step is stirred for 2 hours.

6. The process as defined in claim 1, wherein said aqueous alkali extraction is one of calcium hydroxide in water, and magnesium hydroxide in water.

7. The process as defined in claim 1, wherein following separating of said second mixture, said second solid fraction is washed with water and separated to remove more of said protein from said second solid fraction into said second aqueous fraction.

8. The process as defined in claim 1, wherein said evaporating of said second aqueous fraction is done by spray drying.

9. A process for extracting flax protein concentrate from flax meal, comprising:

a) removing water-soluble carbohydrates from the flax meal;

b) hydrolyzing the flax meal using a lipolytic enzyme to remove lipids that are bound to the protein of the flax meal; and

c) recovering the protein.

10. The process as defined in claim 9, wherein said water-soluble carbohydrates are removed by adding the flax meal into an aqueous acidic solution.